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KNOBBE MARTENS OLSON & BEAR LLP
2040 MAIN STREET
FOURTEENTH FLOOR
IRVINE, CA 92614

EXAMINER	
MORRISON, JAY A	

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/694,509
Filing Date: October 27, 2003
Appellant(s): BENSON, ERIC A.

Ronald J. Schoenbaum
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 2/14/07 appealing from the Office action mailed 8/22/06.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

Durham (Patent Number 6,330,566), McDonough et al. ('McDonough' hereinafter) (Patent Number 5,991,878), and Goldberg (Patent Number 5,907,847).

(9) Grounds of Rejection

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-15,17-28,30-42 are rejected under 35 U.S.C. 102(e) as being anticipated by Durham (Patent Number 6,330,566).

As per claim 1, Durham teaches

"a server that responds to user requests for web pages, said server comprising a memory" (figure 6; column 1, line 46 through column 16, line 40);

"schema data stored in the memory of the server, said schema data specifying past and present schemas used to encode data structures into cookies stored on user computers" (figure 5; column 9, line 33 through column 10, line 59);

"a conversion component executed by the server, said conversion component configured to use the schema data to identify and decode the data structures encoded within cookies received from user computers to generate temporary data structures within the memory of the server" (column 9, line 65 through column 10, line 11);

"and application code executed by the server, said application code configured to use the temporary data structures to customize web pages requested by the user computers" (column 9, line 65 through column 10, line 11).

As per claim 2, Durham teaches

"the conversion component is not specific to a particular type of data structure" (column 4, lines 12-48).

As per claim 3, Durham teaches

"the conversion component supports a plurality of different types of data structures" (column 4, lines 12-48).

As per claim 4, Durham teaches

"the schema data specifies the content and format of each of a plurality of data structures that are encoded within the cookies" (column 9, lines 32-65).

As per claim 5, Durham teaches

"the schema data includes, for a given data structure that is encoded within cookies, an identification of primitive fields of the given data structure and datatypes of said primitive fields" (column 4, lines 20-48).

As per claim 6, Durham teaches

"the schema data further includes address offsets of the primitive fields" (column 4, lines 20-48).

As per claim 7, Durham teaches

"the schema data includes, for a given data structure that is encoded within cookies, an indication of a range of schema versions for which the data structure is valid, wherein the conversion component uses said range to determine whether a particular data structure encoded within a cookie is valid" (column 4, lines 12-48).

As per claim 8, Durham teaches

"the schema data includes information about at least one data structure that is no longer in use" (out of date, column 10, lines 12-16).

As per claim 9, Durham teaches

"the conversion component uses the schema data to determine which of a set of the data structures encoded within a received cookie are to be decoded for use" (column 11, line 15-36 and column 15, lines 24-50).

As per claim 10, Durham teaches

"the conversion component uses the schema data to determine whether a particular data structure that is encoded within a received cookie is to be decoded for use" (column 11, line 15-36 and column 15, lines 24-50).

As per claim 11, Durham teaches

"the conversion component is an executable function that is called by the application code" (column 31, lines 15-32).

As per claim 12, Durham teaches

"the schema data is cached with random access memory of the server" (column 6, lines 8-17).

As per claim 13, Durham teaches

"the schema data is stored within a file in the memory of the server" (column 6, lines 19-36).

As per claim 14, Durham teaches

"the schema data is stored within a table in the memory of the server" (column 11, lines 52-67).

As per claim 15, Durham teaches

"the conversion component uses a checksum included within a received cookie to evaluate whether the cookie has been modified" (figure 3; column 8, line 2 through column 9, line 32; note: checksums are used to validate all network data).

As per claim 17, Durham teaches

"an encoding component that encodes data structures into cookies according to a current schema specified by the schema data" (figures 4-5; column 9, lines 32-52).

As per claim 18, Durham teaches

"(a) receiving, at a server, cookie data that has a data structure encoded therein, said cookie data received from a user computer" (figure 3; column 8, line 2 through column 9, line 32) "wherein the validity of the data structure is determined using

information that identifies types of encoded data structures that are currently valid" (incomplete, column 8, lines 13-20);

"(b) determining whether the data structure encoded within the cookie data is valid" (figure 3; column 8, line 2 through column 9, line 32; note: when a network computer system receives data, the data is validated throughout the network transport stages);

"(c) if and only if the data structure encoded within the cookie data is determined to be valid in step (b), decoding the encoded data structure to reproduce the data structure within a memory of the server" (column 9, line 65 through column 10, line 11; note: the data received over a network, after validation throughout the transport of that data, is determined valid).

As per claim 19, Durham teaches

"the validity of the data structure as determined in step (b) reflects whether the data structure is currently used by any applications running on the server" (column 9, line 65 through column 10, line 16).

As per claim 20, Durham teaches

"step (b) comprises identifying a version of a schema used to encode the data structure within the cookie data" (column 9, line 65 through column 10, line 16).

As per claim 21, Durham teaches

"step (b) comprises using schema data stored within the memory of the server to determine whether the data structure is valid" (column 9, lines 28-32).

As per claim 22, Durham teaches

"a plurality of data structures are encoded within the cookie data, and the method comprises determining which of the plurality of data structures should be fully decoded" (column 11, line 15-36 and column 15, lines 24-50).

As per claim 23, Durham teaches

"using the data structure as reproduced in step (c) to customize a web page requested by the user computer" (column 9, line 66 through column 10, line 12).

As per claim 24,

"step (c) is performed by executable code that is not specific to a particular type of data structure" (column 8, lines 5-20; note: executable handled different data structures in the reference).

As per claim 25, Durham teaches

"the data structure includes primitives of at least one of the following data types: 16-bit integers, 32-bit integers" (column 4, lines 12-48).

As per claim 26, Durham teaches

"A server system that performs the method" (figure 6; column 1, line 46 through column 16, line 40).

As per claim 27, Durham teaches

"A computer program that embodies the method of claim 18 stored within a computer readable medium" (column 6, lines 19-36).

As per claim 28, Durham teaches

"identifying a set of data structures to be encoded within the cookie data" (figure 2; column 7, lines 21-50);

"encoding the set of data structures within the cookie data according to schema data stored within a computer memory, said schema data specifying how the set of data structures is to be encoded within the cookie data" (figure 5; column 9, line 33 through column 10, line 59);

"and incorporating into the cookie data at least one of the following to facilitate extraction of the set of data structures from the cookie data: (a) a schema identifier, (b) the schema data" (figure 5; column 10, line 12 through column 11, line 67).

As per claim 30, Durham teaches

"incorporating a schema identifier into the cookie data, said schema identifier identifying one of a plurality of schemas used over a period of time to encode data structures within cookie data" (column 3, lines 5-20).

As per claim 31, Durham teaches

"the set of data structures is encoded within the cookie data using executable code that is not specific to a particular type of data structure" (column 8, lines 5-20; note: executable handled different data structures in the reference).

As per claim 32, Durham teaches

"the set of data structures includes non-character primitives" (column 4, line 20-34).

As per claim 33,

This claim is rejected on grounds corresponding to the arguments given above for rejected claim 25 and is similarly rejected.

As per claim 34, Durham teaches

"incorporating a checksum into the cookie data to permit subsequent detection of whether the cookie data has been modified" (figure 3; column 8, line 2 through column 9, line 32; note: checksums are used to validate all network data).

As per claim 35, Durham teaches

"the method is performed in an off-line mode to reduce a delay experienced by a user" (column 9, line 65 through column 10, line 11; note: all web transactions are

atomic by definition, with states maintained between transactions and processing done outside of the transactions, and therefore the processing is done off-line).

As per claim 36, Durham teaches

"A computer-readable medium comprising cookie data generated" (column 6, lines 18-36).

As per claim 37, Durham teaches

"A computer system configured to perform the method" (figure 1; column 5, line 64 through column 6, line 7).

As per claim 38, Durham teaches

"a computer-readable medium that stores a computer program embodying the method" (column 6, lines 18-36).

As per claim 39, Durham teaches

"storing schema data on at least one server computer of a web site system, said schema data specifying schemas used by executable software to (a) encode data structures within cookies for storage on user computers, and (b) decode said cookies to extract the data structures when the cookies are returned by the user computers" (figure 5; column 9, line 33 through column 10, line 59);

"and modifying the schema data over time to add data structures to, and remove data structures from, a set of data structures encoded within cookies by the executable software" (column 7, lines 21-50).

As per claim 40, Durham teaches

"the schema data is modified according to a set of rules to enable the executable software to decode cookies encoded using both past and present schemas" (column 3, lines 5-20).

As per claim 41, Durham teaches

"the rules are enforced by a management layer" (personalization process, column 7, line 22-29).

As per claim 42, Durham teaches

"the executable software is not specific to a particular type of data structure" (column 8, lines 5-20; note: executable handled different data structures in the reference).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Durham (Patent Number 6,330,566), as applied to claim 1 above, and further in view of McDonough et al. ('McDonough' hereinafter) (Patent Number 5,991,878).

As per claim 16,

Durham does not explicitly indicate "the conversion component applies a decryption algorithm to encrypted information contained in the cookies received from the user computers".

However, McDonough discloses "the conversion component applies a decryption algorithm to encrypted information contained in the cookies received from the user computers" (column 4, lines 44-56).

It would have been obvious to one of ordinary skill in the art to combine Durham and McDonough because using the steps of "the conversion component applies a decryption algorithm to encrypted information contained in the cookies received from the user computers" would have given those skilled in the art the tools to improve the invention by insuring that only authorized users have access. This gives the user the advantage of having more secure data.

5. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Durham (Patent Number 6,330,566) as applied to claim 28 above, and further in view of Goldberg (Patent Number 5,907,847).

As per claim 29, Durham teaches

"cookie" (column 4, lines 12-20).

Durham does not explicitly indicate "incorporating the schema data into the ... data".

However, Goldberg discloses "incorporating the schema data into the ... data" (column 3, lines 39-49).

It would have been obvious to one of ordinary skill in the art to combine Durham and Goldberg because using the steps of "incorporating the schema data into the ... data" would have given those skilled in the art the tools to improve the invention by insuring the integrity of the data. This gives the user the advantage of being able to immediately interpret the data.

(10) Response to Argument

With respect to the outstanding 35 USC 102 rejection of claim 1, and all claims which depend therefrom, Applicant argues that Durham does not teach "schema data stored in the memory of the server, said schema data specifying past and present schemas used to encode data structures into cookies stored on user computers". In

order to better answer the Applicant's arguments, the Examiner looked to the instant Application to better understand definitions of key terms in the claims, specifically "schema data" and "data structures". Schema data was not found in the application, so for purposes of examination schema data is understood to mean the content structure of data, which is a commonly accepted meaning. In the instant Application, the only definition of data structures was that they "may contain a variety of different types of data elements, including N-bit integers and other non-character elements" (paragraph [0007]). With regards to the argument that Durham does not teach the above limitation, it is clear that schema data is defined in the case that a cookie cannot be found on the client:

> "Note that there can be a case where the client sent in enough data to allow the server to recognize the client, but that the cookie contents were otherwise incomplete or damaged. Under such a circumstance, cookie generation can simply become a matter of retrieving client data from the server database and generating a cookie from that data." (column 8, lines 13-18)

Thus Durham shows that the data stored in the client cookie is in fact derived from schema data, since the structure content of data is defined in schemas which are an element of server databases. The data structures which are created from these schemas are seen in Durham:

> "The overall process is that (assuming a client did not send a proper cookie on contacting the server) the client is redirected to an initialization page to start entering the client's personalization preferences (FIG. 2, step 114). When personalization completes, the settings are written to a server user-property database. The settings are read back by a cookie generation subroutine and used to generate the compressed cookie. The compressed cookie is included in a response-page header when an HTTP response is generated to the initial client contact request is made for the entry page. Code within the response page (an ASP file) disassembles the cookie and uses its contents to generate the page

> according to user preferences stored in the cookie." (column 9, line 66 through column 10, line 11)

The data structures, or the variety of different types of data elements as defined earlier, in the instant Application are equivalent to Durham's client personalization preferences as defined above. These preferences are written to the database and the cookie, therefore it is clear that the same schema that is used to encode the cookie since a schema is required to map these preferences to the database.

The final segment of the limitation being argued is the schema data specifies past and present schemas, where the following from Durham reads on this part of the limitation:

> "Thus, at step 200 of FIG. 5 a version number is added to the cookie. Tracking a version number allows the system to know when the client has become out of date, and it also allows the system to know what cookie-format to expect when processing a pre-existing cookie." (column 10, lines 12-16)

This shows that there are past and present versions of the schemas that are written to the cookie, which discloses this part of the limitation.

Respectfully, in answer to the Applicants' arguments that does not use schema data to encode data structures into cookies, the above arguments answer this argument; clearly the schema data is used if the data is written to and can be reconstructed from databases which depend on the structure of content. Further, the argument that the data elements are incorporated into the cookie using a hard-coded format, assuming this even matters, is answered in Durham: "It is presumed in the following discussion that a generated web page has the following sections..." (column 9,

lines 53-55). Obviously the bindings of the specific data to the underlying data structures is exemplary in the Durham reference and given in light earlier descriptions, and it is respectfully noted that binding must take place at some point in the process but this should not be confused with the generic process itself as described by Durham.

It is therefore respectfully submitted that the limitation is taught by Durham.

Applicant also argues that Durham do not teach "a conversion component executed by the server, said conversion component configured to use the schema data to identify and decode the data structures encoded with cookies received from user computers to generate temporary data structures within the memory of the server", it is respectfully submitted that the Durham reference teaches the schema data and data structures being stored in a cookie as explained previously. The conversion component which decodes these data structures is shown in Durham:

> "Also shown as item 266 is a personalization button. Selecting this button (it is understood that references to a button includes other activation methods as well, including image hot-spots, hypertext-links, etc.) initiates the personalization routines, and allows one to create or revise personalization settings in accord with the teachings of FIG. 5." (column 16, lines 14-19)

These personalization and preferences, shown in an expanded format in column 15, lines 30-45, are the contents of the cookie decoded from the complicated process which stores the preference information into the cookie, as disclosed at length in columns 11-14. These preferences are the same as those stored in the database and share the same structures, they have just been recalled from the client for editing or viewing or use in creating a dynamic webpage such as those in Figures 6 or 7. Regardless, temporary data structures are used for all of these elements; these

structures are simply objects which are typically instantiated (created and initialized based on a class definition) for temporary use, as is done in virtually every dynamic content on every webpage and is just commonly accepted as standard practice.

It is therefore respectfully submitted that the limitation in claim 1 are is clearly taught by Durham.

With respect to the outstanding 35 USC 102 rejection of claims 2, 24, 31, and 42, and all claims which depend therefrom, Applicant argues that Durham does not teach "wherein the conversion component is not specific to a particular type of data structure". It is respectfully submitted that Durham teaches various types of data elements (column 4, lines 12-28), and that these are exemplary: "It is presumed in the following discussion that a generated web page has the following sections..." (column 9, lines 53-55). It is therefore respectfully submitted that the limitation is taught by Durham.

With respect to the outstanding 35 USC 102 rejection of claim 4, and all claims which depend therefrom, Applicant argues that Durham does not teach "wherein the schema data specifies the content and format of each of a plurality of data structures that are encoded within the cookies". It is respectfully submitted that, as shown previously, Durham teaches preferences are written to the database and the cookie (column 9, line 66 through column 10, line 11), therefore it is clear that the same schema that is used to encode the cookie since a schema is required to map these preferences to the database. Further, Durham discloses multiple types of data (columns

11-12), some optional (column 12, lines 25), which are to be encoded in the cookie and all have to be represented by data structures or objects on the server. It is therefore respectfully submitted that the limitation is taught by Durham.

With respect to the outstanding 35 USC 102 rejection of claim 5, and all claims which depend therefrom, Applicant argues that Durham does not teach "wherein the schema data includes, for a given data structure that is encoded within cookies, an identification of primitive fields of the given data structure and datatypes of said primitive fields". It is respectfully submitted that Durham teaches "a cookie creation routine encodes numeric data in the range 0-63 as a single character" (column 4, lines 12-14). Further, preferences are written to the database and the cookie (column 9, line 66 through column 10, line 11), therefore it is clear that the same schema that is used to encode the cookie since a schema is required to map these preferences to the database. This describes that the schema data included an indication of a primitive field which can be included in the data that is contained in data structures. It is therefore respectfully submitted that the limitation is taught by Durham.

With respect to the outstanding 35 USC 102 rejection of claim 6, and all claims which depend therefrom, Applicant argues that Durham does not teach "wherein the schema data further includes address offsets of the primitive fields". It is respectfully submitted that Durham teaches "individual preference bits are set" (column 13, line 33). Further, preferences are written to the database and the cookie (column 9, line 66

through column 10, line 11), therefore it is clear that the same schema that is used to encode the cookie since a schema is required to map these preferences to the database, and the schema is further enhanced in the memory of the server to include the address offsets of primitive fields as shown above. This describes that the schema data included an indication of an address offset of primitive fields, which can be included in the data that is contained in data structures. It is therefore respectfully submitted that the limitation is taught by Durham.

With respect to the outstanding 35 USC 102 rejection of claim 7, and all claims which depend therefrom, Applicant argues that Durham does not teach "wherein the schema data includes, for a given data structure that is encoded within cookies, an indication of a range of schema versions for which the data structure is valid". It is respectfully submitted that Durham teaches:

> "Thus, at step 200 of FIG. 5 a version number is added to the cookie. Tracking a version number allows the system to know when the client has become out of date, and it also allows the system to know what cookie-format to expect when processing a pre-existing cookie." (column 10, lines 12-16)

Which shows that there are cookie versions which are valid and other earlier ones which are invalid. It is therefore respectfully submitted that the limitation is taught by Durham.

With respect to the outstanding 35 USC 102 rejection of claim 8, and all claims which depend therefrom, Applicant argues that Durham does not teach "wherein the

schema data includes information about at least one data structure that is no longer in use". It is respectfully submitted that Durham teaches that a version number indicates when a client has become out of date (column 10, lines 12-16). This fits the limitation, since all the data structures in the cookie being out of date means that at least one is out of date. It is therefore respectfully submitted that the limitation is taught by Durham.

With respect to the outstanding 35 USC 102 rejection of claim 9 and 22, and all claims which depend therefrom, Applicant argues that Durham does not teach "wherein the conversion component uses the schema data to determine which of a set of the data structures encoded within a received cookie are to be decoded for use". It is respectfully submitted that Durham teaches "In the direct-access method, a table of personalization buttons are presented for directly jumping to a personalization page for each available option category (e.g. weather, stocks, local new, international news, etc.)" (column 16, lines 26-31), which shows that the various data structures for these various personalization categories can be made available individually and therefore decoded from the cookie by the conversion component. It is therefore respectfully submitted that the limitation is taught by Durham.

With respect to the outstanding 35 USC 102 rejection of claim 10, and all claims which depend therefrom, Applicant argues that Durham does not teach "wherein the conversion component uses the schema data to determine whether a particular data structure that is encoded within a received cookie is to be decoded for use". It is

respectfully submitted that Durham teaches "In the direct-access method, a table of personalization buttons are presented for directly jumping to a personalization page for each available option category (e.g. weather, stocks, local new, international news, etc.)" (column 16, lines 26-31), which shows that the various data structures for these various personalization categories can be made available individually and therefore decoded from the cookie by the conversion component. It is therefore respectfully submitted that the limitation is taught by Durham.

With respect to the outstanding 35 USC 102 rejection of claim 18, and all claims which depend therefrom, Applicant argues that Durham does not teach "receiving, at a server, cookie data that has a data structure encoded therein". It is respectfully submitted that Durham teaches the server receiving a cookie from a client (column 7, lines 64-66), and the cookie data having a data structure encoded is as disclosed in arguments for claim 1, above. It is therefore respectfully submitted that the limitation is taught by Durham.

Applicant also argues that Durham do not teach "determining whether the data structure encoded within the cookie data is valid, wherein the validity of the data structure is determined using information that identifies types of encoded data structures that are currently valid". Durham teaches:

> "Thus, at step 200 of FIG. 5 a version number is added to the cookie. Tracking a version number allows the system to know when the client has become out of date, and it also allows the system to know what cookie-format to expect when processing a pre-existing cookie." (column 10, lines 12-16)

Here, Durham uses the version number that determines the validity of the data structures contained in the cookie. It is therefore respectfully submitted that the limitation is taught by Durham.

Applicant also argues that Durham do not teach "if and only if the data structure encoded within the cookie data is determined to valid in step (b), decoding the encoded data structure to reproduce the data structure with a memory of the server", it is respectfully submitted that the cookie is decoded as shown in arguments for claim 1. With regards to the requirement that the cookie data be valid before decoding, Durham teaches "the cookie may have been corrupted by cookie management software" (column 8, lines 8-9), in which case an alternate action is performed by Durham. It is therefore respectfully submitted that the limitation is taught by Durham.

With respect to the outstanding 35 USC 102 rejection of claim 28, and all claims which depend therefrom, Applicant argues that Durham does not teach "identifying a set of data structures to be encoded within the cookie data". It is respectfully submitted that Durham teaches the limitation largely along the lines of the response made to claim 1 above, except the cookie creation stage can be handled in two ways by Durham. First in the case of a client without a cookie or with a damaged cookie:

> "During the preference selection process, client preferences are also recorded 144 in the Property Database 136. Consequently, the code that sets the cookie based on first-time interaction with the client, can also to handle setting the cookie after an update-personalization session. In particular, when a client has no cached-settings cookie, but does have a database entry, StrPxFromPropertyDatabase generates a cookie based on Property Database 136 settings. When the client changes a setting on the site, the Property Database is updated, and then StrPxFromPropertyDatabase updates the cookie.

> And, if the cookie is strategically pathed, it may be seen by related sites. Thus, on visiting a related site, the cookie could be inspected, possibly updated (e.g., the version is old), while also allowing the related site to create its own cookie based in part on the cookie from the related site." (column 8, lines 44-60)

> The second is the case of a user first coming to a site:
>
> "The overall process is that (assuming a client did not send a proper cookie on contacting the server) the client is redirected to an initialization page to start entering the client's personalization preferences (FIG. 2, step 114). When personalization completes, the settings are written to a server user-property database. The settings are read back by a cookie generation subroutine and used to generate the compressed cookie." (column 9, line 66 through column 10, line 6)

It is clear with either of these scenarios that the data structures are encoded into the cookie. It is therefore respectfully submitted that the limitation is taught by Durham.

Applicant also argues that Durham do not teach "encoding the set of data structures within the cookie data according to schema data stored within a computer memory, said schema data specifying how the set of data structure is to be encoded with the cookie data". It is respectfully submitted that teaches these limitations Durham again largely as shown in the claim 1 response, again in the cookie encoding stage and not the decoding stage, but in all other ways equivalent in the schema data specifying how the data structures are to be encoded. Also, see the above sections from Durham (column 8, lines 44-60 and column 9, line 66 through column 10, line 6). It is therefore respectfully submitted that the limitation is taught by Durham.

With respect to the outstanding 35 USC 102 rejection of claim 35, and all claims which depend therefrom, Applicant argues that Durham does not teach "wherein the

method is performed in an off-line mode to reduce a delay experienced by a user". It is noted that the nature of the Internet means that much of the work is performed in off-line mode since the communications between client and server are performed in short bursts between which the communication is closed. Therefore the pause between pages in the referenced section of Durham, where the personalization preferences are entered on an initialization page (column 10, lines 1-2) and then the HTTP response is sent (column 10, line 7), are likely done via separate connections and therefore the method is in fact done off-line. It is therefore respectfully submitted that the limitation is taught by Durham.

With respect to the outstanding 35 USC 102 rejection of claim 39, and all claims which depend therefrom, Applicant argues that Durham does not teach "storing schema data on at least one server computer of a web site system, such schema data specifying schemas used by executable software to (a) encode data structures within cookies for storage on user computers, and (b) decode said cookies to extract the data structures when the cookies are returned by the user computers". It is respectfully submitted that Durham teaches the limitations as shown in the responses given to claims 1 and 28, where claim 1 shows the decoding elements and claim 28 shows the encoding elements. It is therefore respectfully submitted that the limitation is taught by Durham.

Applicant also argues that Durham do not teach "modifying the schema data over time to add data structure to, and remove data structures from, a set of data structures

encoded within cookies by the executable software". It is respectfully submitted that the Durham reference shows:

> "Note that the leading "05" corresponds to version control. The cookie creation routine adds a version number to the beginning of the cookie, so that the cookie interpretation code can determine what format the cookie is in. This allows the server to utilize different format/compression schemes depending on the types of data the server expects to present to the client." (column 4, lines 40-48)
>
> "Thus, at step 200 of FIG. 5 a version number is added to the cookie. Tracking a version number allows the system to know when the client has become out of date, and it also allows the system to know what cookie-format to expect when processing a pre-existing cookie." (column 10, lines 12-16)

This indicates that the schema data, as it is stored on the client, can change over time and become out of date as certain data structures are included or removed from a client cookie. It is therefore respectfully submitted that the limitation is taught by Durham.

With respect to the outstanding 35 USC 102 rejection of claim 40, and all claims which depend therefrom, Applicant argues that Durham does not teach "wherein the schema data is modified according to a set of rules to enable the executable software to decode cookies encoded using both past and present schemas". It is respectfully submitted that Durham teaches:

> "Note that the leading "05" corresponds to version control. The cookie creation routine adds a version number to the beginning of the cookie, so that the cookie interpretation code can determine what format the cookie is in. This allows the server to utilize different format/compression schemes depending on the types of data the server expects to present to the client." (column 4, lines 40-48)

This shows that the schema data on the server can be modified in memory to fit the version used in various cookies. It is therefore respectfully submitted that the limitation is taught by Durham.

With respect to the outstanding 35 USC 102 rejection of claim 41, and all claims which depend therefrom, Applicant argues that Durham does not teach "wherein the rules are enforced by a management layer". It is respectfully submitted that Durham teaches that the server processes the cookies and version numbers (column 4, lines 40-48), which can be considered the management layer. It is therefore respectfully submitted that the limitation is taught by Durham.

Conclusion:

It is respectfully submitted that a combination of the references cited disclose the claimed browser cookies used to store structured data. In light of the forgoing arguments, the examiner respectfully requests the honorable Board of Appeals and Interferences to sustain the rejection.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

Respectfully submitted,

/Jay Morrison/

Jay Morrison, Assistant Examiner, AU 2168

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TIM VO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

Conferees:

Tim Vo, SPE AU 2168

Eddie Le, TQAS/Appeals Specialist, TC 2100

EDDIE C. LEE
SUPERVISORY PATENT EXAMINER